

Unit 9

Day 2

Equations with Radicals

1)

$$(x)^2 (\sqrt{15-2x})^2$$

$$x^2 = 15 - 2x$$

$$x^2 + 2x - 15 = 0$$

$$(x+5)(x-3) = 0$$

$$x \neq -5 \quad x = 3$$

$$\frac{(\sqrt{5})^2}{5}$$

$$\{3\}$$

$$x = \sqrt{15-2x}$$
$$-5 = \sqrt{15+10}$$
$$-5 \neq 5$$

2) $\left(\sqrt[3]{2x^2 - 5x + 4} = \sqrt[3]{2x^2} \right)$

$$\cancel{2x^2} - 5x + 4 = \cancel{2x^2}$$

$$-5x = -4$$

$$x = \frac{4}{5}$$


3) $\sqrt{3x+1}+3=x$

$$(\sqrt{3x+1})^2 = (x-3)^2$$

$$3x+1 = x^2 - 6x + 9$$

$$0 = x^2 - 9x + 8$$

$$0 = (x-8)(x-1)$$



$$\sqrt{24+1} + 3 = 8$$
$$5 + 3 = 8 \checkmark$$

$$\frac{\sqrt{3+1}}{2} + 3 = 1$$
$$2 + 3 \neq 1$$

HOMEWORK: p. 136-7: 27-32, 39-42

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